



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,178	03/16/2001	Toyohisa Oya	2870-0164P	5742
2292	7590	12/15/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			CHEA, THORL	
			ART UNIT	PAPER NUMBER

1752

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/809,178	<b>Applicant(s)</b> OYA ET AL. <span style="float: right;">A</span>	
	<b>Examiner</b> Thorl Chea	<b>Art Unit</b> 1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 July 2004.  
2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-27 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 17-27 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 17-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed fails to provide support for the claimed language "free from a dye-forming coupler".

With respect to this language the applicants argue that

"In order to further distinguish the present invention from the cited prior art, Applicants have amended claim to include the following phrase: "and free from a dye-forming coupler." Thus, the claimed invention excludes the presence of a dye-forming coupler. Indeed, the specification of the present application does not utilize dye-forming coupler. Further, none the working examples described in the specification utilize a dye-forming coupler. Also, claim 15 recites that the images are formed from silver rather than with dye-forming couplers. Thus, one of ordinary skill the art would readily understand that the present specification discloses a monochromatic photothermographic material free from a dye-forming coupler".

The argument is not persuasive. The specification as originally filed fails to exclude any dye-forming coupler presented from a monochromic photothermographic material. The applicants is referred to page 62, lines 19-38 which discloses, "the photothermographic material may be used either of monochromatic photosensitive materials and color photosensitive material. For obtaining a wide range of colors on chromaticity diagram by using three primary colors of

Art Unit: 1752

yellow, magenta and cyan. The specification on page 88 cited the US Patent No. 4,708,928 which discloses the use of dye forming material such as leuco dye and the dye forming developing agent. The dye therein forms from a leuco dye and the dye-forming developing agent. The leuco dye is considered as dye-forming coupler because it reacts to the leuco dye to form a dye. Therefore, the claiming of a monochromatic photothermographic material free from dye-forming coupler raises new concept, and therefore, an issue of new matter. .

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 17-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is unclear with respect to the use of the language "said photothermographic material is a monochromatic photothermographic material" in combination with the language "free from a dye forming coupler". It is unclear as it is intended to cover the scope of the a monochromatic material is a single color material having a color dye, but free from a dye-forming coupler, a silver image material such as black and white photothermographic material or otherwise. Therefore, the scope of protection sought for the type of material is unclear. Also, the scope of protection sought for "dye-forming coupler" is indefinite as the specification fails to clearly provide the metes and bounds thereof.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 1752

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 17-22, 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Takeuchi or Nakamura et al (Nakamura.) in view of the combination of Cerquone et al (Cerquone), EP 0762196 (EP'196) and Shoei et al (US Patent No. 5,064,753). Note to Takeuchi in the abstract, the exemplified compound in columns 5-20 compound I-1 to I-28, column 63, lines 49-63; Nakamura in the abstract, exemplified compound in columns 7-33, compounds (1) to (90), and column 116, lines 57-67, column 117, lines 1-4. Takeuchi and Nakamura disclose both photosensitive silver halide material and heat-development light sensitive material. In the case of a heat-development light sensitive material the light-sensitive silver halide emulsion may be used together with an organosilver salt oxidizing agent. Cerquone discloses a photothermographic material, which contains a combination of the use of the color developer for dye forming coupler and the reducing agent for silver ion. Note for instance the sulfoamidophenol and the reducing agent, which react with silver salt oxidizing agent to produce desired dye image (column 6, compound A to D and lines 50-60). EP'196 discloses a phenol compound as reducing agent for silver salt. Note for instance compound A on page 2 and compound on page 3. Shoei et al (US Patent 5,064,753) in column 60, lines 19-35 discloses a difference of photothermographic material such as black and white type which forms silver image by thermal development, or the color type which employs dye-providing materials. Light-sensitive color material of color type include those which are intended to produce monochromatic colors based on black or other single color-forming dye-providing material, as well as those which are designed to produce full color based on the formation of yellow, cyan and magenta colors.

Art Unit: 1752

It would have been obvious to use the phenol compound as reducing agent for silver ion in combination with the color developer taught in either Takeuchi or Nakamura with an expectation of producing to produce a single color-forming material such as taught in Shoei, and thereby provide the invention as claimed.

7. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi or Nakamura et al (Nakamura) as applied to claims 17-22, 25-27 above, and further in view of JP10339934 (JP'934). The phthalazine compound has been known in JP'934 as to provide a photothermographic material with low fog and to improve photothermographic property. See US patent no. 6,146,822 which is equivalent to the JP'934 in column 5, compound (I). It would have been to the worker of ordinary skill in the art to incorporate the phthalazine derivative taught in JP'934 for same reason, and thereby provide a material as claimed.

***Response to Amendment***

8. Applicant's arguments filed July 7, 2004 have been fully considered but they are not persuasive for the reason set forth in the office action above. The use of a single color-forming dye-providing compound to form a monochromatic heat-developable material has been known and taught in Shoei et al, and the one of ordinary skill in the art would have form a single color layer to form a monochromatic material or more than one color layers to form a multicolor material such as taught in Shoei et al. Shoei in column 62, lines 16-24 discloses that "if it is desired to produce solely a silver image in the absence of any dye providing material, the following reducing agents may be employed : phenols ...and paraphenylenedimaine.". Therefore, the worker of ordinary skill in the art at the time the invention was made to form a

silver image or dye image accordingly to the absence or the presence of the dye in combination with the selection of a reducing agents.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1700.

Application/Control Number: 09/809,178

Page 7

Art Unit: 1752

tchea *tin*  
December 12, 2004

Thorl Chea  
Primary Examiner  
Art Unit 1752

A handwritten signature in cursive script, appearing to read "Thorl Chea", written in black ink.